Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (currently amended) A process for producing a connection structure which process comprises

(1) providing

(A) a PTC device including (i) a laminar polymer PTC element and (ii) a metal foil electrode disposed on a main surface of the laminar polymer PTC element, the metal foil electrode comprising at least two metal layers, one of which, the X-th layer, having a laser beam absorption of a% that is the lowest laser beam absorption of the metal layers of the metal foil electrode, and another of which, the first layer, having a laser beam absorption of b%, where b > a, and being located farthest from the laminar polymer PTC element, said X-th layer being positioned between the laminar polymer PTC element and the first layer, and

(B) a metal lead element, and

(2) electrically connecting ~~connected to~~ the metal foil electrode~~,~~ ~~through the electrical connection between the metal foil electrode and~~ to the metal lead element by laser welding~~,~~

~~wherein the metal foil electrode comprises at least two metal layers, and a metal layer which has the lowest laser beam absorption (the X-th layer having a laser beam absorption of a%) among the metal layers of the metal foil electrode is present between a metal layer, of the metal foil electrode, located farthest from the laminar polymer PTC element (the first layer having a laser beam absorption of b% (b > a)) and the laminar polymer PTC element~~.

2. (original) The process according to Claim 1, wherein the metal foil electrode comprises two metal layers, and the X-th layer is a metal layer of the metal foil electrode which is in contact with the laminar polymer PTC element.

3. (currently amended) The process according to Claim 1, wherein the metal foil electrode comprises three metal layers, and the X-th layer is a metal layer of the metal foil electrode

which is in contact with the laminar polymer PTC element, or a metal layer present between the first layer and a metal layer of the metal foil electrode which is in contact with the laminar polymer PTC element.

4. (currently amended) The process according to Claim ~~any one of Claims~~ 1 ~~to 3~~, wherein the difference (b - a) is larger than 5% ~~((b – a) > 5%)~~.

5. (currently amended) The process according to Claim ~~any one of Claims~~ 1 ~~to 4~~, wherein the metal lead element comprises at least one metal layer, and a metal layer of the metal lead element which is in contact with the metal foil electrode has a laser beam absorption of c% which is higher than the laser beam absorption (a%) of the X-th layer of the metal foil electrode ~~(i.e., c > a)~~.

6. (currently amended) The process according to Claim 5, wherein the difference (c - a) is larger than 5% ~~((c – a) > 5%)~~.

7. (currently amended) The process according to Claim ~~any one of Claims~~ 1 ~~to 6~~, wherein the laser beam is a YAG laser beam.

8. (original) The process according to Claim 7, wherein the metal foil electrode is a nickel-plated copper foil, and the metal lead element is nickel.

9. (currently amended) A connection structure produced by the process according to ~~any one of~~ Claim 1 ~~to 8~~.

10. (currently amended) A PTC device for use in the process according to Claim ~~any one of Claims~~ 1 ~~to 8~~.

11. (original) The PTC device according to Claim 10, wherein the metal foil electrodes are disposed on both main surfaces of the laminar polymer PTC element, and at least one of the metal foil electrodes is electrically connected to the metal lead element by laser welding.

12. (new) The process according to Claim 1, wherein the metal foil electrode comprises three metal layers, and the X-th layer is a metal layer of the metal foil electrode present between the first layer and a metal layer of the metal foil electrode which is in contact with the laminar polymer PTC element.